

## CLAIMS

1. A method of routing packets in a packet network, said packet network including a chain of packet nodes, said chain comprising first and second access nodes for  
5 communicating with one or more mobile nodes and one or more intermediate packet nodes, said one or more intermediate packet nodes providing a path interconnecting said first and second access nodes, said method comprising the steps of:
- installing, in said intermediate packet nodes, first routing data defining a first routing path in one direction along said chain to a mobile node via said first access node  
10 and second routing data defining a second routing path in the opposite direction along said chain to said mobile node via said second access node;
- operating each of said intermediate packet nodes to:
- determine, on receipt of a packet destined for said mobile node, whether said packet is from another node on said chain or not; and
- 15 a) if the packet is determined to be from a node not on said chain, copying the packet and routing said copy along one of said routing paths and routing said packet along the other of said routing paths; and
- b) if the packet is determined to be from another node on said chain, route said packet along said chain only in the direction in which it is currently travelling.
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2. A method according to claim 1, wherein said packet(s) include(s) a unique address of the mobile node.
3. A method according to claim 1 or 2, wherein said unique address is the same  
25 before and after a handover of the mobile node from the first access node to the second access node.
4. A method according to claim 3 further comprising the steps of operating each node in the packet network:
- 30 a) to associate a routing value with said unique address;
- b) responsive to the receipt of said packet at said node to forward said packet towards another node having a lower routing value associated with said unique address;
- c) responsive to the creation of a wireless link between a mobile node having said unique address and said node to reduce said routing value associated with said

unique address to a lower value than that associated with said unique address by the other nodes in said network.

5. A method according to claim 3 or 4, wherein said first routing data are installed  
5 prior to the handover of said mobile node from said first access node to said second access node.

6. A method according to any of claims 3 to 5, wherein said second routing data  
10 include data indicating that said second routing data relates to the handover of said mobile node from said first access node to said second access node.

7. A method according to any preceding claim, wherein said second routing data  
15 are installed in response to a routing control message generated at said second access node and transmitted to said first access node.

8. A method according to any preceding claim, wherein said first access node and  
said second access node are wireless access nodes and wherein said packets are sent to  
and received from said mobile node via a wireless transmission system.

20 9. A packet network including a chain of packet nodes, said chain comprising:  
first and second access nodes for communicating with one or more mobile  
nodes; and  
one or more intermediate packet nodes providing a path interconnecting said first  
and second access nodes;  
25 said intermediate packet nodes having installed therein first routing data defining a first  
routing path in one direction along said chain to a mobile node via said first access node  
and second routing data defining a second routing path in the other direction along said  
chain to said mobile node via said second access node  
each intermediate packet node being arranged in operation to determine, on receiving a  
30 packet destined for said mobile node, whether said packet is from another node on said  
chain or not and  
a) if the packet is determined to be from a node not on said chain, copying the  
packet and routing said copy along one of said routing paths and routing said packet  
along the other of said routing paths; and

b) if the packet is determined to be from another node on said chain, route said packet along said chain only in the direction in which it is currently travelling.

10. A packet node for use in a packet network according to claim 10.

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11. A digital data carrier carrying a program of instructions executable by processing apparatus to perform the method steps as set out in any one of claims 1 to 10.